

**Havana.** Observatorio meteorologico, magnetico y seismico del Colegio de Belen.

Año de 1909. Habana. 1910. f°.

**Hegyfoky, J.**

Die jährliche Periode der Niederschläge in Ungarn. Budapest. 1909. v. 129 p. f°. (Officielle Publicationen der dem Königl. ungar. Ackerbau-Minister unterstehenden Königl. ung. Reichsanstalt für Meteorologie und Erdmagnetismus. 1909. Band 8.)

**Korhonen, W. W.**

Schnee- und Eisverhältnisse in Finland im Winter 1901-1902. Helsingfors. 1910. 47 p. f°. (Beilage zum Finnländischen meteorologischen Jahrbuch, Jahrg. 1902.)

**Mizusawa.** International latitude observatory.

Annual report of the meteorological and the seismological observations. [Mizusawa.] 1910. 36 p. f°.

**Strassburg.** Zentralbureau der Internationalen seismologischen Association.

Katalog der im Jahre 1906 registrierten seismischen Störungen. 1. Teil. Die schwächeren und weniger ausgeprägten Störungen (3 B.). Von Siegmund Szirtes. Strassburg. 1910. IV, 109 p. f°. (Veröffentlichungen...).

**Sundell, A. F.**

Barometervergleichungen ausgeführt in den Jahren, 1886-1887 an verschiedenen meteorologischen Centralstellen. Helsingfors. 1887. 64 p. 4°. (Abdruck aus "Acta Societatis scientiarum Fenniae," Tom. 16.)

Ueber ein neues schweres Horizontalpendel mit mechanischer Registrierung für seismische Stationen zweiten Ranges. St. Petersburg. 1910. 75 p. 4°.

Vergleichungen zwischen Normalbarometern. Helsingfors. 1906. 59 p. 4°. (Acta Societatis scientiarum Fenniae. Tom. 34. no. 2.)

**RECENT PAPERS BEARING ON METEOROLOGY AND SEISMOLOGY.**

C. FITZHUGH TALMAN, Librarian.

The subjoined titles have been selected from the contents of the periodicals and serials recently received in the Library of the Weather Bureau. The titles selected are of papers or other communications bearing on meteorology or cognate branches of science. This is not a complete index of the meteorological contents of all the journals from which it has been compiled; it shows only the articles that appear to the compiler likely to be of particular interest in connection with the work of the Weather Bureau. Unsigned articles are indicated by a —.

*American forestry.* Washington. v. 16. June, 1910.

Rothrock, J. T. Some observations on forests and water-flow. p. 349-351.

*American geographical society.* Bulletin. New York. May, 1910.

Stefánsson, V. Underground ice in northern Alaska. p. 337-345.

*American philosophical society.* Proceedings. Philadelphia. v. 49. Jan.-April, 1910.

Hobbs, Wm. Herbert. Characteristics of the inland-ice of the Arctic regions. p. 57-129.

*Engineering news.* New York. v. 63. 1910.

— Records of evaporation obtained at 23 different stations in various parts of the United States. p. 694-695. (June 16.)

Gannett, Farley. What stream gagings indicate as to the run-off from forested and barren areas. p. 759-760.

*Geographical journal.* London. v. 35. June, 1910.

— Local winds in the south of France. p. 718-719. [Extr. of paper by Martonne.]

*Nature.* London. v. 83. 1910.

Palmer, Andrew H. The temperature conditions within clouds. p. 396-397. (June 2.)

Dines, W. H., &amp; Pring, J. N. Meteorological observations during the passage of the earth through the tail of Halley's comet. p. 427. (June 9.) [Upper air observations, including measurements of ozone.]

Weinberg, Boris. On the preservation of hailstones and the investigation of their microstructure. p. 427-428. (June 9.)

*Royal meteorological society.* Quarterly journal. London. v. 36. April, 1910.

Mellish, Henry. Some relations of meteorology with agriculture. p. 77-92.

Mawley, Edward. Report on the phenological observations for 1909. p. 93-119.

Makower, W. and others. Investigation of the electrical state of the upper atmosphere, made at the Howard estate observatory, Glossop, July and August, 1909. p. 121-126.

Harwood, W. A. Results of twenty-five registering balloon ascents made from Manchester, June 2 and 3, 1909. p. 127-134.

Lempfert, R. G. K., &amp; Corless, Richard. Line-squalls and associated phenomena. p. 135-170.

Palmer, Andrew H. Model of the chrono-isotherms of Boston Mass., U. S. A. p. 181.

*School science and mathematics.* Chicago. v. 15. June, 1910.

Wade, Frank H. An inexpensive anemometer. p. 480-483.

*Science.* New York. v. 31. June 3, 1910.

Barnes, H. T. On the apparent sinking of surface ice in lakes. p. 856-857.

*Scientific American.* New York. v. 102. June 18, 1910.

— A storm-warning service for aeronauts. p. 511-512.

*Scientific American supplement.* New York. v. 69. June 25, 1910.

Paine, Ellery B. Lightning: A summary of recent studies. p. 407. [Includes estimates of voltage, strength of current, energy, etc.]

*Symons's meteorological magazine.* London. v. 45. 1910.

Gibson, Herbert. The genesis and function of the dew-pond. p. 63-67. (May.)

— The British rainfall organization. A new development. p. 81-83. (June.)

Salter, Carl. The rainfall in Jamaica in November, 1909. p. 85-86. (June.)

Jones, J. R. Gethin. The latest winter snow spot in England and Wales. p. 90-91. (June.)

C. H. E. Wind waves in water, sand and snow. p. 74-75; 93-94. (May.)

*Terrestrial magnetism.* Baltimore. v. 15. June, 1910.

Kidson, Edward. Atmospheric electricity observations on the first cruise of the "Carnegie." p. 83-91.

*Archives des sciences physiques et naturelles.* Genève. Tome 29. 15 mai 1910.

Voeikov, A. L'extension du hêtre, fonction du climat. p. 506-519.

*Ciel et terre.* Bruxelles. 31 année. Mai 1910.

Arctowski, Henryk. Les anomalies de la répartition de la pression atmosphérique aux États-Unis. p. 200-201.

Poskin, P. Cycles du temps dans l'accroissement des grands arbres. p. 201-208. [Review of paper by A. E. Douglass in *MONTHLY WEATHER REVIEW*.]*Cosmos.* Paris. 59 année. 1910.

L., B. Bernard Brunhes, physicien et météorologue. p. 593-594. (28 mai.)

Boyer, Jacques. Nouvelles recherches sur la résistance de l'air. p. 685-688.

*France.* Académie des sciences. Comptes rendus. Paris. Tome 150. 23 mai 1910.

Angot, Alfred. Variations magnétiques et électriques dans la nuit du 18 au 19 mai 1910. p. 1371-1372.

Lebel, J. A. Observation de l'ionisation de l'air en vase clos pendant le passage de la comète de Halley. p. 1372-1373.

*Nature.* Paris. 38 année. 28 mai 1910.

Loisel, J. La prévision du temps. p. 403-408.

*Annalen der Hydrographie und maritimen Meteorologie.* Berlin. 38. Jahrgang. Juni 1910.

Lütgens, Rudolf. Weitere Untersuchungen über die Verdunstung auf dem Meer. p. 267-271.

*Geographische Zeitschrift.* Leipzig. 16. Jahrgang. Mai 1910.

Thorbecke, F. Das ozeanisch-subtropische Klima und die Gebiete der Etesien und Winterregen. p. 261-272.

*Himmel und Erde.* Berlin. Jahrgang 22. Juni 1910.

Peppler, W. Die neue Methode der Wettervoraussage von G. Guillet. p. 390-393.

Meissner, Otto. Die Temperaturverhältnisse Berlins in den letzten 170 Jahren. p. 420-423.

*Illustrierte aeronomatische Mitteilungen.* Berlin. 14. Jahrgang. 15. Juni 1910.

Polis, Peter. Der Wetterdienst beim Gordon-Bennett-Ausscheidungsfliegen zu Essen am 5. Juni 1910. p. 11-13.

*Meteorologische Zeitschrift.* Braunschweig. Band 27. Mai 1910.

Billwiller, R., jun. Ein neues Modell eines geschützten Regenmesser (als geänderter Nipherischen Trichter). p. 193-198.

Schreiber, Paul. Einfache Hilfsmittel zum Studien der Vorgänge in den oberen Schichten der Atmosphäre. p. 198-209.

— Professor Knut Ångström. p. 211.

Gold, E., &amp; Harwood, W. A. Temperaturverhältnisse der freien Atmosphäre. p. 211-215. [Replies to criticisms of their report to the British Association.]

Hann, J. Julius. Ist die Luft auf den Bergen kälter als die Atmosphäre in gleicher Höhe? p. 215-217.

Everdingen, E. van. Ist die Luft auf den Bergen kälter als die Atmosphäre in gleicher Höhe? p. 217-219.

Trabert, W. Zur Frage des Temperaturunterschiedes auf Bergen und in der "freien" Atmosphäre. p. 219-220.

— A. Gockel über die in der Atmosphäre vorhandene durchdringende Strahlung. p. 221-222.

Kurz, K. Die radioaktiven Stoffe in der Erde und in der Luft als Ursache der durchdringenden Strahlung in der Atmosphäre. p. 222-224.

Mache, H. Beiträge zur Kenntnis der atmosphärischen Elektrizität. XXXVI. Messungen über die in der Atmosphäre vorhandene radio-

## MONTHLY WEATHER REVIEW.

MAY, 1910

- aktive Strahlung von hohem Durchdringungsvermögen. p. 223-224.
- Bellia über das elektrische Potential der Atmosphäre auf dem Ätna. p. 224-225.
- Conrad, V. H. Ebert über die Registrierung der dem Erdboden entquellenden Emanationsmengen. p. 225-226.
- Conrad, V. C. T. R. Wilson, Diskussion der luftelektrischen Beobachtungen auf dem englischen Südpolarexpedition 1901 bis 1904. p. 226-227.
- Wagner, A. Untersuchung der Luftströmungen während der Regenzeit in Ägyptischen Sudan. p. 227-228.
- Stentzel, Arthur. Zu den Dämmerungsanomalien im Sommer 1908. p. 228-229.
- V. J. Laine über den Einfluss des Donners auf die Grösse der Regentropfen. p. 230-231.
- Danckelman, A. von. Meteorologische Beobachtungen im Gebiete des Tschadsees. p. 231-233. [Extract.]
- Kesslitz, W. v. Zum Borasturm in der Nordadria am 31. März 1910. p. 233-235.
- Petermanns Mitteilungen. Gotha. 56. Band. Mai 1910.
- Eckhardt, Wilh. R. Die geographischen Grundlagen des Vogelproblems. 1. Der Vogelzug in seinen Beziehungen zu Klima, Nahrungsverhältnissen und Landesnatur. 5. Einfluss der meteorolog. Erscheinungen auf den Vogelzug. p. 241-245.
- Physikalische Zeitschrift. Leipzig. 11. Jahrgang. 1. Juni 1910.
- Weinberg, Boris. Das Aufbewahren der Hagelkörner und die Untersuchung der Mikrostruktur derselben. p. 516-517. [Describes method of preserving hailstones and making sections for the microscope.]
- Wetter. Berlin. 27. Jahrgang. Mai 1910.
- Peppeler, W. Ueber die Methode der Wettervoraussage von G. Guilbert. p. 97-106.
- Dreis, J. Wolkenbeobachtungen. p. 110-117.
- Eckhardt, Wilh. R. Tropenzone und Wettervorhersage p. 117-120.
- Woch. Berlin. 12. Jahrgang. 28. Mai 1910.
- Weber, Adelheid. Die Wetterfahne. p. 932-935. [Illustrated with many photographs of ornamental wind-vanes.]
- Hemel en Dampkring. Den Haag. 8. Jaargang. Mei 1910.
- Monné, A. J. De zomers te Utrecht en de Bilt (1849-1909.) p. 10-14.

## CONDENSED CLIMATOLOGICAL SUMMARY.

In the following table are given, for the various sections of the Climatological Service of the Weather Bureau, the average temperature and rainfall, the stations reporting the highest and lowest temperatures with dates of occurrence, the stations reporting the greatest and least monthly precipitation, and other data, as indicated by the several headings.

The mean temperatures for each section, the highest and

lowest temperatures, the average precipitation, and the greatest and least monthly amounts are found by using all trustworthy records available.

The mean departures from normal temperature and precipitation are based only on records from stations that have ten or more years of observations. Of course the number of such records is smaller than the total number of stations.

Temperature and precipitation by sections, May, 1910.

Section.	Temperature—in degrees Fahrenheit.							Precipitation—in inches and hundredths.								
	Section average.	Departure from the normal.	Monthly extremes.				Section average.	Departure from the normal.	Greatest monthly.			Least monthly.				
			Station.	Highest.	Date.	Station.			Station.	Amount.	Station.	Amount.	Station.	Amount.		
Alabama.....	68.9	- 2.4	Lucy.....	98	30	2 stations.....	34	14	Guntersville.....	8.54	Lucy.....	0.47				
Arizona.....	72.5	+ 2.7	2 stations.....	121	29†	Flagstaff.....	22	5	Chiarsons Mill.....	0.39	31 stations.....	0.00				
Arkansas.....	66.0	- 3.7	Junction.....	95	30	Eureka Springs.....	31	7	Conway.....	10.39	Many stations.....	4.20				
California.....	65.5	+ 3.2	3 stations.....	121	30	Tamarack.....	6	5	Monumental.....	3.19	Mancos.....	0.00				
Colorado.....	51.2	+ 0.5	Hochne.....	98	31	Breckenridge.....	6	17	Corona.....	5.27	2 stations.....	T.				
Florida.....	75.1	- 0.4	Huntington.....	100	23	Milligan.....	41	18	Arcadia.....	7.88	Vaidosta.....	0.20				
Georgia.....	69.8	- 2.1	St. George.....	100	30	Diamond.....	33	14	Dahlonga.....	11.33	Waipae R'ch. Maul.....	0.00				
Hawaii.....	69.6	.....	Molokai Ranch.....	91	29	Humula, Hawaii.....	34	9†	Hakalau (Mauka).....	26.60	Pikeville.....	2.18				
Idaho.....	54.9	+ 2.0	Garnett.....	107	31	Stone.....	19	17	Burke.....	4.38	Lawrence.....	2.64				
Illinois.....	58.0	- 4.4	Equality.....	89	11	Lanark.....	24	5	Morrisonville.....	8.65	Solomons, Md.....	1.57				
Indiana.....	57.4	- 4.7	Mount Vernon.....	90	29	Auburn.....	27†	5†	Marengo.....	6.80	Rupert.....	0.17				
Iowa.....	55.4	- 4.7	Mount Pleasant.....	89	8	Washta.....	18	3	Lamoni.....	6.91	Dakota.....	2.32				
Kansas.....	60.0	- 4.2	Ashland.....	99	10	Blakeman.....	24	3	Clay Center.....	10.87	Kokomo.....	2.31				
Kentucky.....	61.1	- 4.6	2 stations.....	89	2†	Farmers.....	30	15	Edmonton.....	9.00	Plover.....	1.29				
Louisiana.....	72.6	- 1.2	Lawrence.....	98	30	Ferriday.....	36	10	Robeline.....	13.00	Fargo.....	0.91				
Maryland and Delaware.....	60.2	- 2.4	5 stations.....	90	1†	Westernport, Md.....	28	6	Annapolis, Md.....	6.39	Otsego.....	1.15				
Michigan.....	50.0	- 3.7	Mount Clemens.....	90	19	2 stations.....	13	14	St. Joseph.....	7.07	Beardsley.....	0.39				
Minnesota.....	51.6	- 3.0	Morris.....	86	19	Floodwood.....	15	3	Grand Meadow.....	3.70	Columbus.....	1.66				
Mississippi.....	69.4	- 2.9	6 stations.....	94	12†	Duck Hill.....	37	14	Natchez.....	11.64	Caruthersville.....	2.03				
Missouri.....	60.1	- 4.6	Warsaw.....	94	20	3 stations.....	32	14	Kansas City.....	10.92	Meadow Creek.....	0.63				
Montana.....	53.4	+ 1.5	3 stations.....	92	29†	Red Lodge.....	11	2	Garnell.....	8.60	Fort Robinson.....	0.58				
Nebraska.....	55.2	- 3.7	Gothenburg.....	95	8†	2 stations.....	30	3†	Fairbury.....	7.37	10 stations.....	0.00				
Nevada.....	58.9	- 4.4	2 stations.....	114	30†	Potts.....	11	5	Wells.....	2.12	Jacksonville, Vt.....	0.67				
New England*.....	54.7	- 0.5	Westboro, Mass.....	92	24	2 stations.....	22	6	Patten, Me.....	6.65	Asbury Park.....	1.48				
New Jersey.....	60.0	- 0.4	Trenton.....	94	24	Lynton.....	27	6	Dover.....	4.25	12 stations.....	0.00				
New Mexico.....	61.3	- 1.5	Alma.....	105	29	Elizabethtown.....	18	17	Valley.....	3.50	New York City.....	1.66				
New York.....	54.1	- 1.9	Bedford.....	87	24	Morehouseville.....	19	8	Greenfield Center.....	6.80	Reidsville.....	2.38				
North Carolina.....	64.9	- 2.4	2 stations.....	96	3†	Banners Elk.....	22	15	Newbern.....	11.80	Jamestown.....	0.15				
North Dakota.....	50.7	- 2.5	Coal Harbor.....	94	28	2 stations.....	10	12†	Crosby.....	2.21	Milligan.....	6.21				
Ohio.....	56.0	- 4.9	2 stations.....	88	1†	Bladensburg.....	21	6	3.80 + 0.17	Sandusky.....	Benton.....	9.14	Savannah.....	1.89		
Oklahoma.....	65.5	- 2.2	3 stations.....	100	10†	2 stations.....	34	2†	Fairland.....	8.50	Woodward.....	0.53				
Oregon.....	57.2	+ 3.3	Huntington.....	104	31	Range.....	14	4†	3.90 - 1.77	Cascade Lock.....	Merrill.....	0.07				
Pennsylvania.....	56.8	- 2.8	2 stations.....	88	1†	Claysville.....	24	6	Gordon.....	6.08	Huntingdon.....	1.73				
Porto Rico.....	75.8	- 1.6	4 stations.....	93	13†	Cayey.....	51	3	Las Marias.....	17.55	Ponce.....	0.18				
South Carolina.....	69.8	- 1.7	Walterboro.....	98	22	2 stations.....	40	15	Liberty.....	16.26	Charleston.....	1.01				
South Dakota.....	53.4	- 3.2	Leslie.....	91	18	Frederic.....	18	2	Deadwood.....	3.55	Eureka.....	0.42				
Tennessee.....	63.4	- 4.3	9 stations.....	89	11†	Mountain City.....	25	15	Benton.....	9.14	Savannah.....	2.28				
Texas.....	72.4	- 0.9	Zapata.....	107	22†	Nazareth.....	32	4	Cuero.....	12.40	2 stations.....	T.				
Utah.....	57.8	+ 2.7	Hite.....	104	31	Grayson.....	15	16	Corinne.....	2.45	5 stations.....	0.00				
Virginia.....	61.0	- 3.3	2 stations.....	92	3	Burkes Garden.....	19	15	New Castle.....	5.96	Woodstock.....	2.06				
Washington.....	58.1	+ 2.5	Kennewick.....	104	31	2 stations.....	24	1	Goat Lake.....	5.47	Ephrata.....	0.00				
West Virginia.....	57.9	- 4.4	Romney.....	98	22	Bayard.....	19	6	Baneroff.....	5.87	Nuttallburg.....	1.55				
Wisconsin.....	51.2	- 3.7	Muscoda.....	82	20	Long Lake.....	12	4	Minocqua.....	2.30	Border.....	0.31				
Wyoming.....	48.8	+ 1.1	3 stations.....	90	29	2 stations.....	8	2†	Wiley.....	4.45	T.					

\*Maine, New Hampshire, Vermont, Massachusetts, Rhode Island, and Connecticut.

†Other dates also.